

Precalculus
4.6B Worksheet
NO CALCULATOR

Name _____

Find the exact values for each of the following:

1. $\cos \frac{\pi}{4}$ _____ 2. $\sin \frac{3\pi}{2}$ _____ 3. $\tan \frac{5\pi}{4}$ _____

4. $\sin \frac{2\pi}{3}$ _____ 5. $\tan \frac{7\pi}{6}$ _____ 6. $\cos \frac{5\pi}{3}$ _____

7. $\sin \frac{5\pi}{6}$ _____ 8. $\tan \frac{4\pi}{3}$ _____ 9. $\cos \frac{7\pi}{4}$ _____

10. $\sin \frac{7\pi}{6}$ _____ 11. $\tan \pi$ _____ 12. $\cos \frac{3\pi}{2}$ _____

13. $\sin \frac{3\pi}{4}$ _____ 14. $\tan \frac{5\pi}{4}$ _____ 15. $\cos \frac{11\pi}{6}$ _____

For each of the following, solve for θ ($0 \leq \theta \leq 2\pi$)

16. $\sin \theta = \frac{\sqrt{3}}{2}$ _____

17. $\cos \theta = -\frac{\sqrt{3}}{2}$ _____

18. $\tan \theta = -1$ _____

19. $\sin \theta = -\frac{1}{2}$ _____

20. $\cos \theta = \frac{1}{2}$ _____

21. $\cos \theta = 0$ _____

22. $\tan \theta = 0$ _____

Graph the following. Label the axes. Provide the amplitude, period, phase shift, and vertical shift in the space provided. If any of these do not exist, write *none*. Show at least one complete period of each graph.

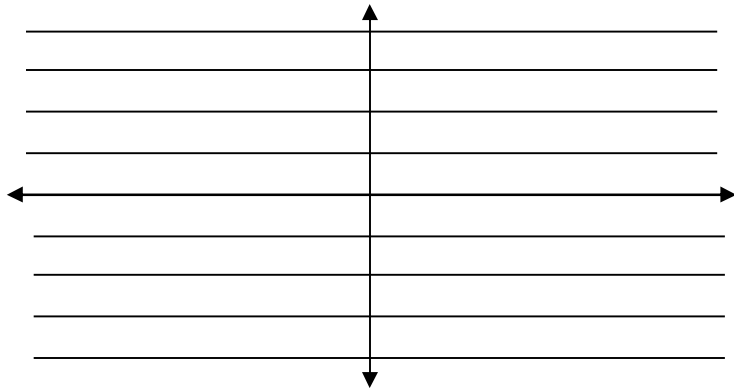
23. $y = 2 \sin \frac{1}{3} \left(x + \frac{\pi}{2} \right)$

Amp. = _____

Period = _____

H. S. = _____

V. S. = _____



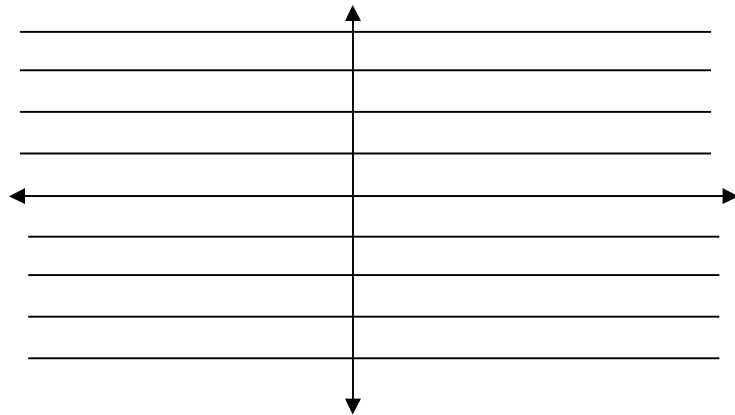
24. $y = 4 \cos(3x + 3\pi) - 1$

Amp. = _____

Period = _____

H. S. = _____

V. S. = _____



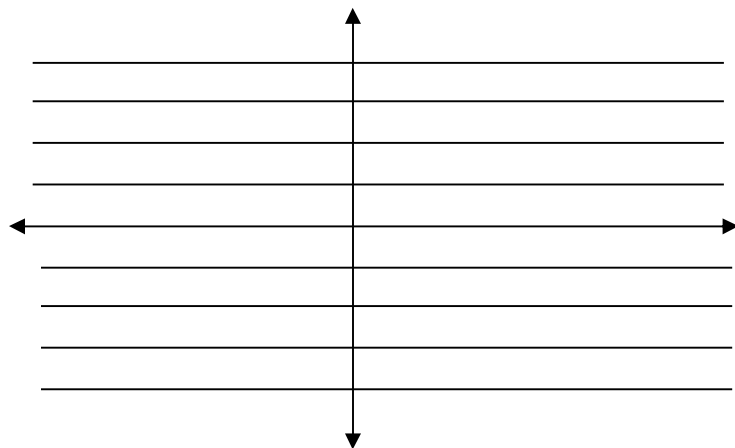
25. $y = \tan \left(x - \frac{\pi}{2} \right)$

Amp. = _____

Period = _____

H. S. = _____

V. S. = _____



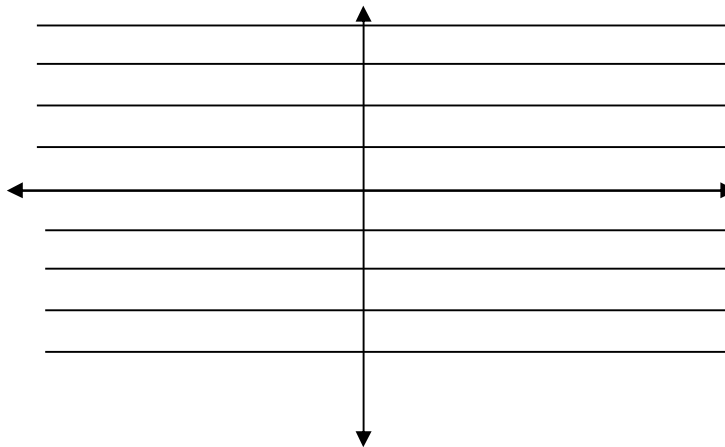
26. $y = -3\csc 2(x + \pi)$

Amp.= _____

Period = _____

H. S. = _____

V. S. = _____



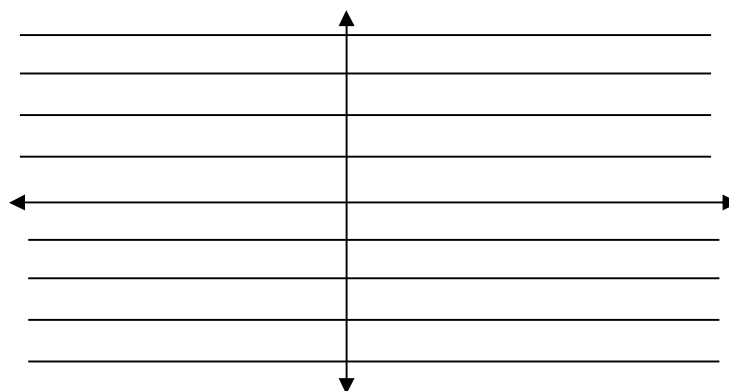
27. $y = \frac{1}{2}\sec 3(x + \pi) - 2$

Amp.= _____

Period = _____

H. S. = _____

V. S. = _____



28. $y = \tan \left(x - \frac{\pi}{2} \right) + 3$

Amp.= _____

Period = _____

H. S. = _____

V. S. = _____

